APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,292	08/31/2001	John L. Gargiulo	655/63622	1901

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EXAMINER
GOLD, AVI M

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/944,292	GARGIULO ET AL.
		Examiner	Art Unit	
		Avi Gold	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

    A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 August 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-52_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-52_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This action is responsive to the application filed August 31, 2001. Claims 1-52

are pending. Claims 1-52 represents a distributed network query.

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because:
> Non-initialed and/or non-dated alterations have been made to the oath or
> declaration. See 37 CFR 1.52(c). Signature of first inventor is not dated.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 1-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Hurst et

al., U.S. Patent No. 6,192,404.

Hurst teaches the invention as claimed including a mechanism for determining

distances between nodes of a computer network when time-to-live (TTL) parameters of

the headers of messages are not accessible (see abstract).

Regarding claims 1, 26, and 46, Hurst teaches a method, network, and a

computer readable medium having computer executable code for identifying a plurality

of nodes on a network, comprising:

receiving at at least one of the plurality of nodes on the network a query posed by

a caller node (col. 3, lines 16-25, Hurst discloses nodes receiving queries sent from a

base node);

determining at the at least one of the plurality of nodes on the network an answer

to the query (col. 3, lines 16-33, Hurst discloses query responses sent back to the base

node);

forwarding the answer to the query from the at least one of the plurality of nodes

on the network to the caller node (col. 3, lines 16-33); and

receiving, at the caller node, the answer to the query from the at least one of the

plurality of nodes on the network and maintaining a list of nodes which responded to the

query (col. 3, lines 34-41, Hurst discloses a base node keeping track and determining

distances of nodes that respond).

Regarding claims 2 and 27, Hurst teaches a method and network as recited in

claims 1 and 26, further comprising calculating at each of the plurality of nodes on the

network a time period to wait before forwarding its respective answer to the query to the

caller node (col. 8, lines 4-19, Hurst discloses a predetermined time period for a node to

respond).

Regarding claims 3 and 28, Hurst teaches a method and network as recited in

claims 2 and 27, wherein each of the plurality of nodes on the network forwards the

answer to the query to the caller node at different times (col. 7, line 63 – col. 8, line 3,

Hurst discloses that no time limit is imposed on responses).

Regarding claims 4 and 29, Hurst teaches a method and network as recited in

claims 2 and 27, wherein the query posed by the caller node includes a delay constant,

each of the plurality of nodes on the network calculating the period of time to wait before

forwarding its respective answer to the query by multiplying the delay constant by its

own network address (col. 8, lines 4-43, Hurst discloses a response sent out based on

node distance from base node).

Regarding claims 5 and 30, Hurst teaches a method and network as recited in

claims 1 and 26, wherein each of the plurality of nodes on the network are on a subnet,

the query posed by the caller node including a subnet mask (col. 3, lines 15-41).

Regarding claims 6 and 31, Hurst teaches a method and a system of identifying

nodes on a network, comprising:

sending a query from a caller node to a subnet:

receiving the query at each of a plurality of nodes on the subnet;

sending from each of the plurality of nodes on the subnet a local response to the

query to at least one other node on the subnet;

receiving, at one of the plurality of nodes on the subnet, the local responses and

compiling a list identifying responding nodes; and

sending the list of responding nodes to the caller node (col. 3, lines 15-41).

Regarding claims 7 and 32, Hurst teaches a method and system as recited in

claims 6 and 31, wherein each of the plurality of nodes on the subnet sends its local

response at different times (col. 7, line 63 – col. 8, line 3).

Regarding claims 8 and 33, Hurst teaches a method and system as recited in

claims 7 and 32, wherein each of the plurality of nodes on the subnet calculates a

period of time to wait prior to sending its local response (col. 8, lines 4-19).

Regarding claims 9 and 34, Hurst teaches a method and system as recited in

claims 7 and 32, wherein the one of the plurality of nodes on the subnet compiling the

list identifying the responding nodes is a node first to respond with a local response to

the query (col. 6, line 49 – col. 7, line 14, Hurst discloses a list based on when nodes

respond).

Regarding claims 10 and 35, Hurst teaches a method and system as recited in claims 9 and 34, wherein the node compiling the list identifying the responding nodes calculates a timeout period indicating when a last of the plurality of nodes will send its local response and receives the local responses until the timeout period has expired (col. 6, line 49 – col. 7, line 14, Hurst discloses a message with a lower TTL value not reaching the computer).

Regarding claims 11 and 36, Hurst teaches a method and system as recited in claims 9 and 34, wherein the timeout period is calculated by the node compiling the list identifying the responding nodes by multiplying an address of a node having a highest IP address on the subnet, by a set value (col. 6, line 49 – col. 7, line 14).

Regarding claims 12 and 37, Hurst teaches a method and system as recited in claims 11 and 36, wherein the set value is sent from the caller node with the query (col. 6, lines 49-67, Hurst discloses a predetermined time sent from base node).

Regarding claims 13 and 38, Hurst teaches a method and system as recited in claims 12 and 37, wherein the query further comprises a subnet mask (col. 3, lines 15-41).

Regarding claims 14 and 39, Hurst teaches a method and system as recited in claims 6 and 31, wherein the query from the caller node includes information identifying

which of the plurality of nodes on the subnet is to compile the list of responding nodes (col. 3, lines 15-41).

Regarding claims 15, Hurst teaches a method and system as recited in claims 14 and 39, wherein each of the responding nodes sends its local response to the node identified in the query (col. 3, lines 15-41).

Regarding claims 16, 41, and 48, Hurst teaches a method of controlling a node in a network, a node for use on a subnet, and a computer readable medium including computer executable code to be executed by a node on a subnet, comprising:

receiving at the node a query from a caller node;

determining an answer to the query (col. 3, lines 15-41);

calculating a period of time to wait before responding to the query;

determining whether the node has a lowest address in the network; if the node does not have the lowest address in the network, waiting the period of time and then responding to the query;

if the node does have the lowest address in the network, determining an address of a node having a highest address in the network; determining, based on the highest address in the network, a query timeout period;

if the node does have the lowest address in the network, listening for responses to the query from other nodes in the network and preparing a list of responding nodes;

and transferring the list of responding nodes to the caller node (col. 6, line 49 – col. 7, line 14).

Regarding claims 17 and 42, Hurst teaches a method and a node as recited in claims 16 and 41, wherein the node determines the period to wait before responding by multiplying its network address by a delay value included with the query from the caller node (col. 8, lines 4-43).

Regarding claims 18 and 43, Hurst teaches a method and a node as recited in claims 16 and 41, wherein the query from the caller node includes a subnet mask, the node determining whether it has the lowest address in a subnet by referring to the subnet mask (col. 6, line 49 – col. 7, line 14).

Regarding claims 19 and 44, Hurst teaches a method and a node as recited in claims 18 and 43, wherein the address of the node having the highest address in the subnet is determined by referring to the subnet mask (col. 6, line 49 – col. 7, line 14).

Regarding claims 20 and 45, Hurst teaches a method and a node as recited in claims 19 and 44, wherein a query timeout period is calculated by the node by multiplying the highest address in the subnet by a delay value included with the query from the caller node (col. 6, line 49 – col. 7, line 14).

Regarding claims 21, 49, 50, 51, and 52, Hurst teaches a method of identifying a plurality of nodes on a network, a program storage device, a computer data signal, a network device, and a network of nodes, comprising:

receiving at at least one of the plurality of nodes on the network a query posed by a caller node; and

monitoring, at a responder node which received the query, responses from other nodes to the query and maintaining a list of nodes which responded to the query (col. 3, lines 15-41).

Regarding claim 22, Hurst teaches the method of claim 21, wherein each node which received the query waits a delay time period unique to the node before responding to the query (col. 8, lines 4-43).

Regarding claim 23, Hurst teaches the method of claim 21 further comprising transmitting from the responder node to the caller node after a query timeout period the list of nodes which responded to the query (col. 3, lines 15-41, col. 8, lines 4-43).

Regarding claim 24, Hurst teaches the method of claim 23, wherein the responder node is the first node to respond to the query (col. 6, line 49 – col. 7, line 14).

Regarding claim 25, Hurst teaches the method of claim 23, wherein a selected one of the plurality of nodes is designated within the query to maintain and transmit to the caller node the list of nodes which responded to the query (col. 3, lines 15-41).

Regarding claim 47, Hurst teaches a computer readable medium including computer executable code for identifying nodes on a network, comprising:

server code for use by a server for sending a query to a subnet:

client code for use by a plurality of client nodes on the subnet for receiving the query from the server, wherein in response to the query, the client code for each of the plurality of client nodes on the subnet sends a local response to the query to at least one other client node on the subnet, the client code of the at least one other client node on the subnet receiving the local responses and compiling a list identifying responding nodes, the client code of at least one other client node sending the list identifying the responding nodes to the server (col. 3, lines 15-41).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,104,701 to Avargues et al.

U.S. Pat. No. 5,604,868 to Komine et al.

U.S. Pat. No. 5,471,461 to Engdahl et al.

U.S. Pat. No. 5,987,011 to Toh

U.S. Pat. No. 6,574,197 to Kanamaru et al.

U.S. Pat. No. 6,112,247 to Williams

U.S. Pat. No. 5,317,742 to Bapat

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002. The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

Art Unit 2157

AMG

/SALEH NAJJAR/
PRIMARY EXAMINER